

Appl. No. : 09/782,588
Filed : February 12, 2001

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A microscope slide composition for performing a first assay at a first assay location, and a second assay at a second assay location, comprising:

a) a substrate with a surface comprising first and second assay locations separated from each other by a physical borderpartition, wherein said assay locations have discrete sites configured to hold a single microsphere, said sites separated by a distance of less than 50 μm ; and wherein said substrate comprises the dimensions of a microscope slide; and

b) a population of microspheres comprising at least a first and a second subpopulation, wherein said first subpopulation comprises a first bioactive agent and said second subpopulation comprises a second bioactive agent, wherein said microspheres are randomly distributed at said discrete sites on said surface[[.]]; and

c) a lid in communication with said partition, wherein a first hybridization chamber is formed at said first assay location, and a second hybridization chamber is formed at said second assay location.

2. (Previously Presented) The composition according to claim 1, wherein said sites are separated by a distance of less than 25 μm .

3. (Previously Presented) The composition according to claim 1, wherein said sites are separated by a distance of less than 15 μm .

4. (Previously Presented) The composition according to claim 1, 2 or 3, wherein said sites are separated by a distance of at least about 5 μm .

5. (Canceled).

6. (Previously presented) The composition according to claim 1, wherein the distance between centers of a first and second microsphere of said first subpopulation is at least 5 μm .

7. (Previously Presented) The composition according to claim 6, wherein the distance between said first and second microsphere of said first subpopulation is less than about 100 μm .

8. (Canceled)

9. (Canceled)

BEST AVAILABLE COPY

Appl. No. : 09/782,588
Filed : February 12, 2001

10. (Previously Presented) The composition according to claim 7, wherein the distance between a first and second microsphere of said first subpopulation is less than about 50 μm .

11. (Previously Presented) The composition according to claim 7, wherein the distance between a first and second microsphere of said first subpopulation is less than about 15 μm .

12. (Previously Presented) The composition according to claim 7, 10 or 11, wherein the distance between said first and second microsphere of said first subpopulation is at least about 5 μm .

Claims 13-17 (Canceled).

18. (Currently Amended) A method for making a microscope slide composition for performing a first assay at a first assay location, and a second assay at a second assay location comprising:

a) providing a substrate with a surface comprising first and second assay locations separated from each other by a ~~physical border~~partition, wherein said assay locations have discrete sites configured to hold a single microsphere, said sites separated by a distance of less than 50 μm , and wherein said substrate comprises the dimensions of a microscope slide; and

b) randomly distributing a population of microspheres comprising at least a first and a second subpopulation at said discrete sites, wherein said first subpopulation comprises a first bioactive agent and said second subpopulation comprises a second bioactive agent~~[.]~~; and

c) placing a lid in communication with said partition, wherein a first hybridization chamber is formed at first assay location, and a second hybridization chamber is formed at said second assay location.

19. (Previously Presented) The method according to claim 18, wherein said discrete sites are separated by a distance of less than 25 μm .

20. (Previously Presented) The method according to claim 18, wherein said discrete sites are separated by a distance of less than 15 μm .

21. (Previously presented) The method according to claim 18, wherein the ratio of said first and said second subpopulation is at least 1 : 36.

22. (Previously presented) The method according to claim 18, wherein the ratio of said first and said second subpopulation is at least 1 : 100.

Appl. No. : 09/782,588
Filed : February 12, 2001

23. (Previously presented) The method according to claim 18, wherein the distance between the centers of a first and second microsphere of said first subpopulation is at least 5 μm .

24. (Previously presented) The method according to claim 18, wherein the distance between the centers of a first and second microsphere of said first subpopulation is at least 15 μm .

25. (Previously presented) The method according to claim 18, wherein the distance between a first and second microsphere of said first subpopulation is at least 50 μm .

26. (Canceled)

27. (Previously presented) The method according to claim 18, wherein said discrete sites are wells.

28. (New) A composition for performing a plurality of assays on a substrate, comprising:

a) a substrate having a surface comprising a first assay location comprising a first population of microspheres and a second assay location comprising a second population of microspheres;

b) a partition separating said first assay location from said second assay location such that reagents applied to said first assay location do not contact said second assay location; and

c) a lid in communication with said partition, wherein a first hybridization chamber is formed at said first assay location and a second hybridization chamber is formed at said second assay location.

29. (New) The composition of Claim 28, comprising a sealant configured to seal said lid to said substrate.

30. (New) The composition of Claim 28, wherein said partition comprises a gasket.

31. (New) The composition of Claim 30, wherein said partition comprises rubber or silicon.

32. (New) The composition of Claim 30, wherein said gasket is adapted to fit within an indentation or channel on the substrate.

33. (New) The composition of Claim 28, further comprising a film disposed between said lid and said partition.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER: _____**

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.